Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
Application No. 10/079,309
Inventor's Phone No.: (951) 674-8100

CNC Machine Tool Parameters Ver 12

| | Tool Parameters | | | | | | | Tool Definitions (Solid Mode Only) | | | | |
	Size	Horz	Vert	Height	Wear	Custom1	Custom2	Corner radius	Bottom angle	Side angle	Length	Type
1	0.25	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	3.0	0
2	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0
3	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0
4	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0
5	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0
6	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0
7	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0
8	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0
9	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0
10	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0

Machine Offsets

X	Y	Z	4	5	6	7	8
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Fixture Offsets

	G54	G55	G56	G57	G58	G59
X	0.0	0.0	0.0	0.0	0.0	0.0
Y	0.0	0.0	0.0	0.0	0.0	0.0
Z	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0

FIG 1.

Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive
tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
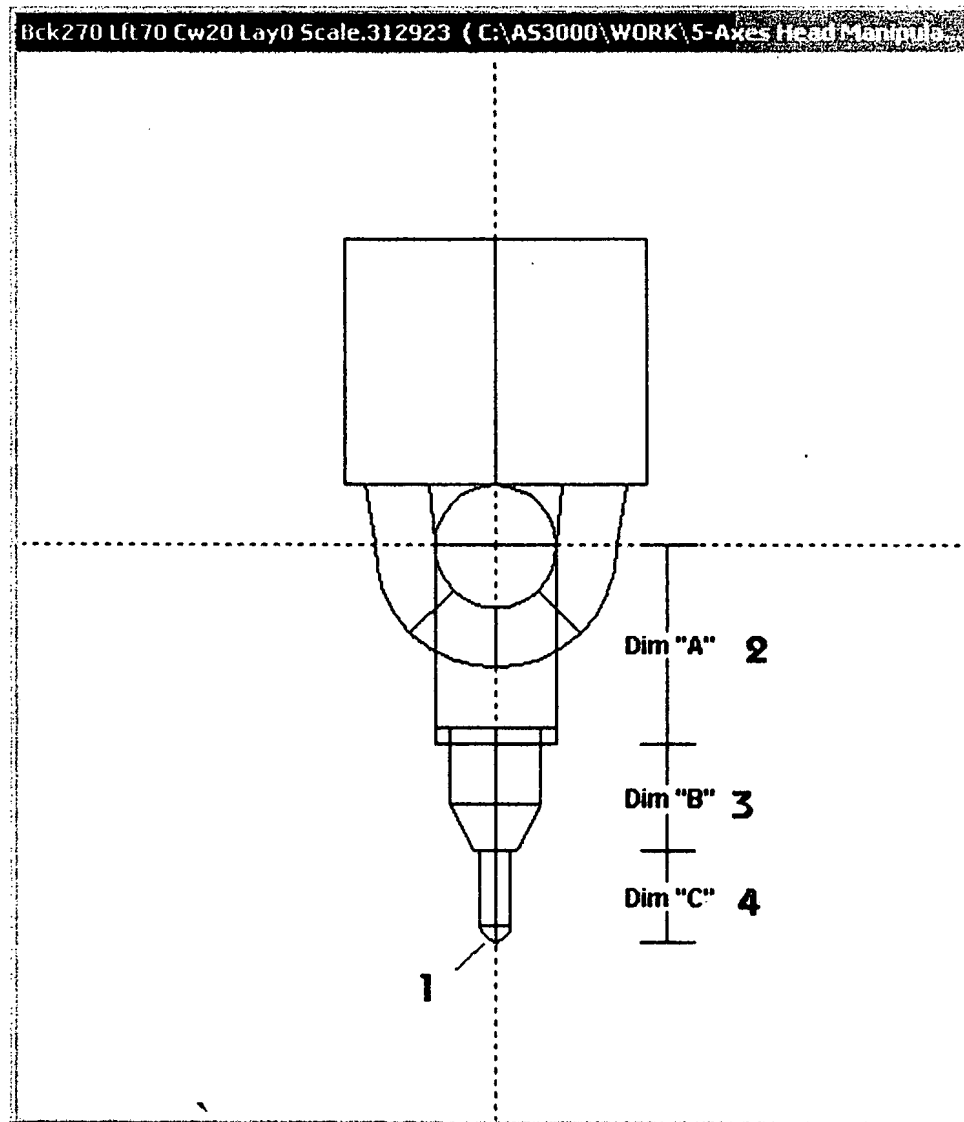Application No. 10/079,309
Inventor's Phone No.: (951) 674-8100

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Bck270 Lft70 Cw20 Lay0 Scale.312923 (C:\AS3000\WORK\5-Axes Head Manimus

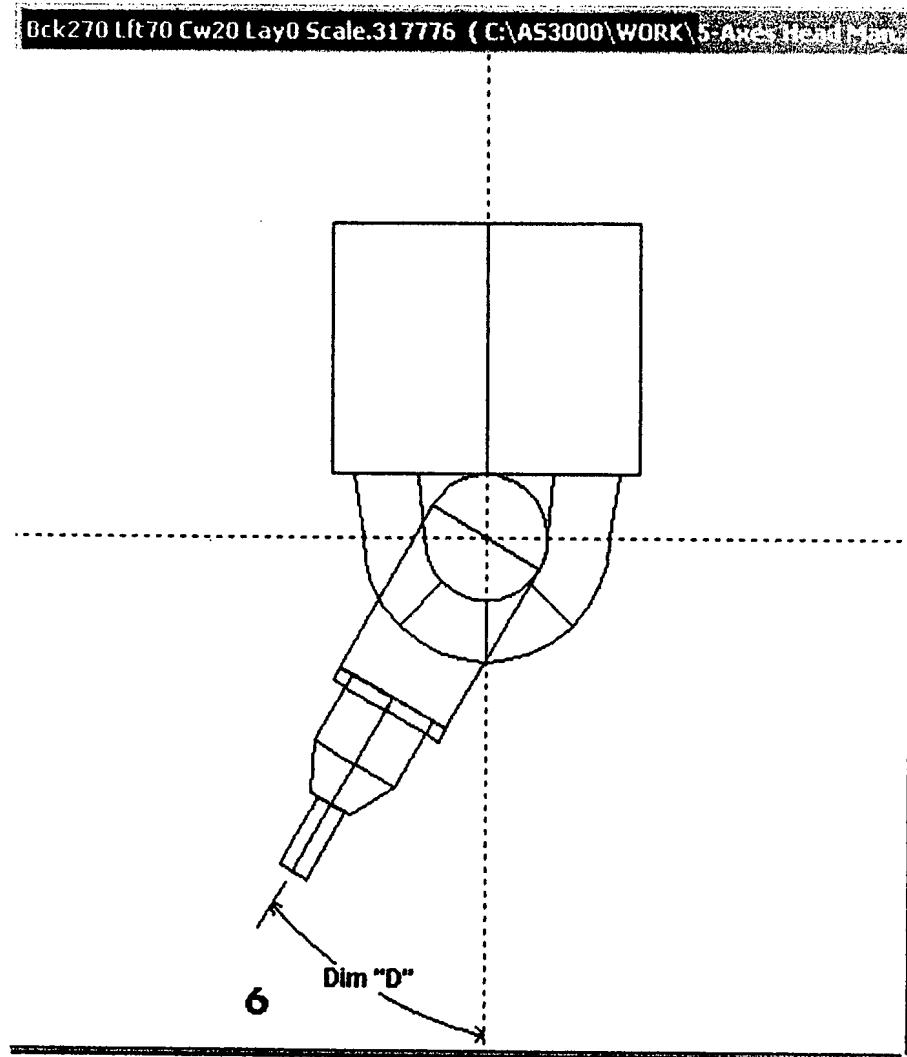Dim "A" 2

Dim "B" 3

Dim "C" 4

1

FIG 2.

Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive
tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
Application No. 10/079,309
Inventor's Phone No.: (951) 674-8100

3/10

Bck270 Lft70 Cw20 Lay0 Scale.300123 (C:\AS3000\WORK\5-Axis
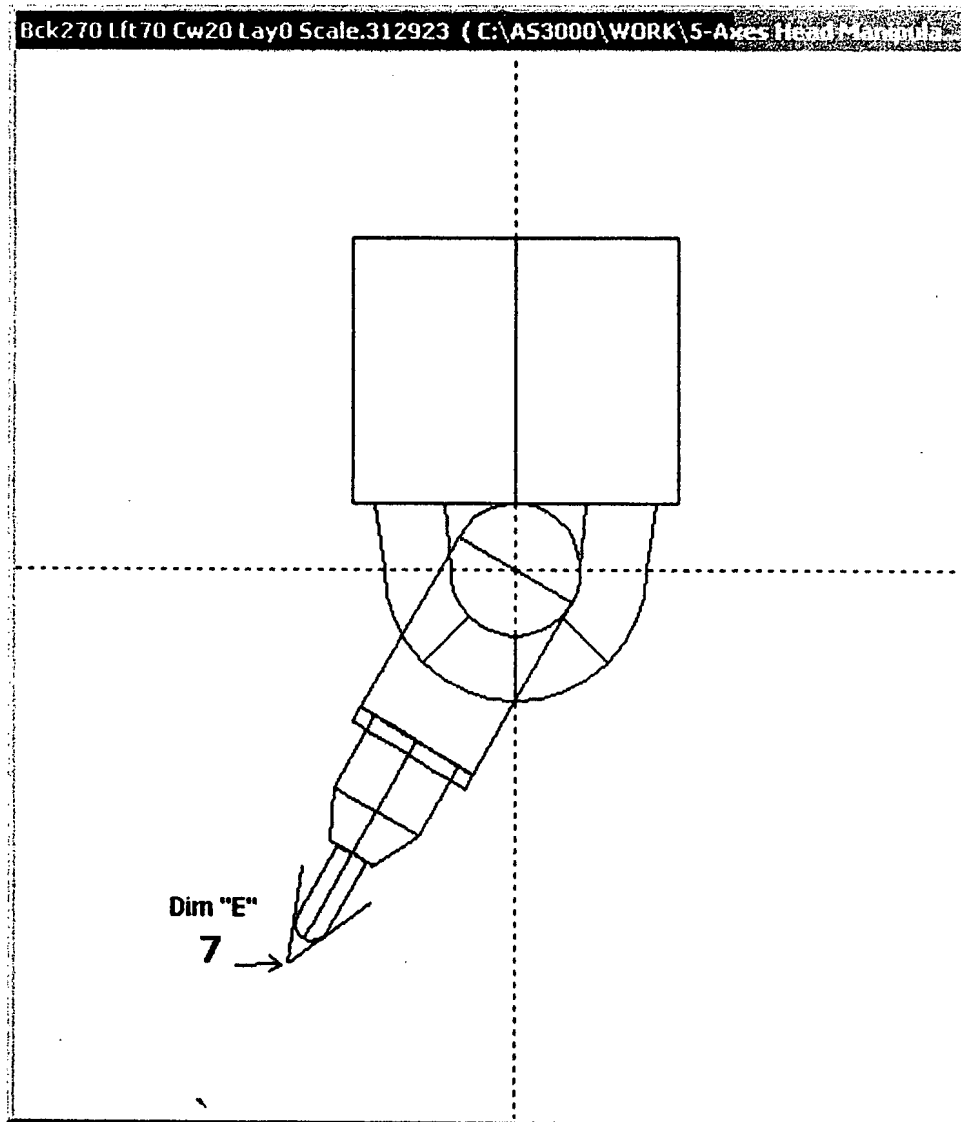
Pivot Point
5

Dim "A"

Dim "B"

Dim "C"

FIG 3.

Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive
tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
Application No. 10/079,309
Inventor's Phone No.: (951) 674-8100

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FIG 4.

Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
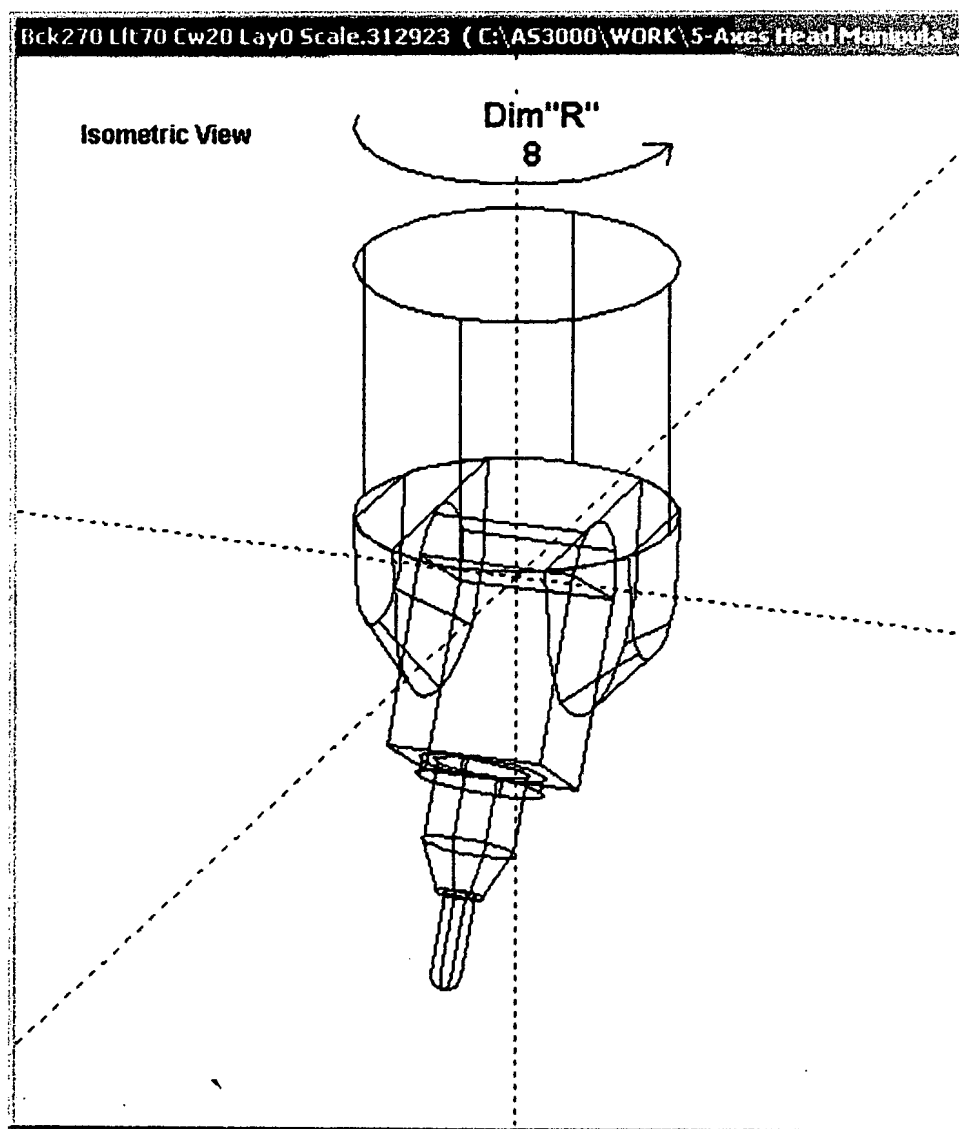Application No. 10/079,309
Inventor's Phone No.: (951) 674-8100

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Bck270 Lft70 Cw20 Lay0 Scale.312923 (C:\AS3000\WORK\5-Axes Head Manipula

Dim "E"

7 →

FIG 5.

Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive
tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
Application No. 10/079,309
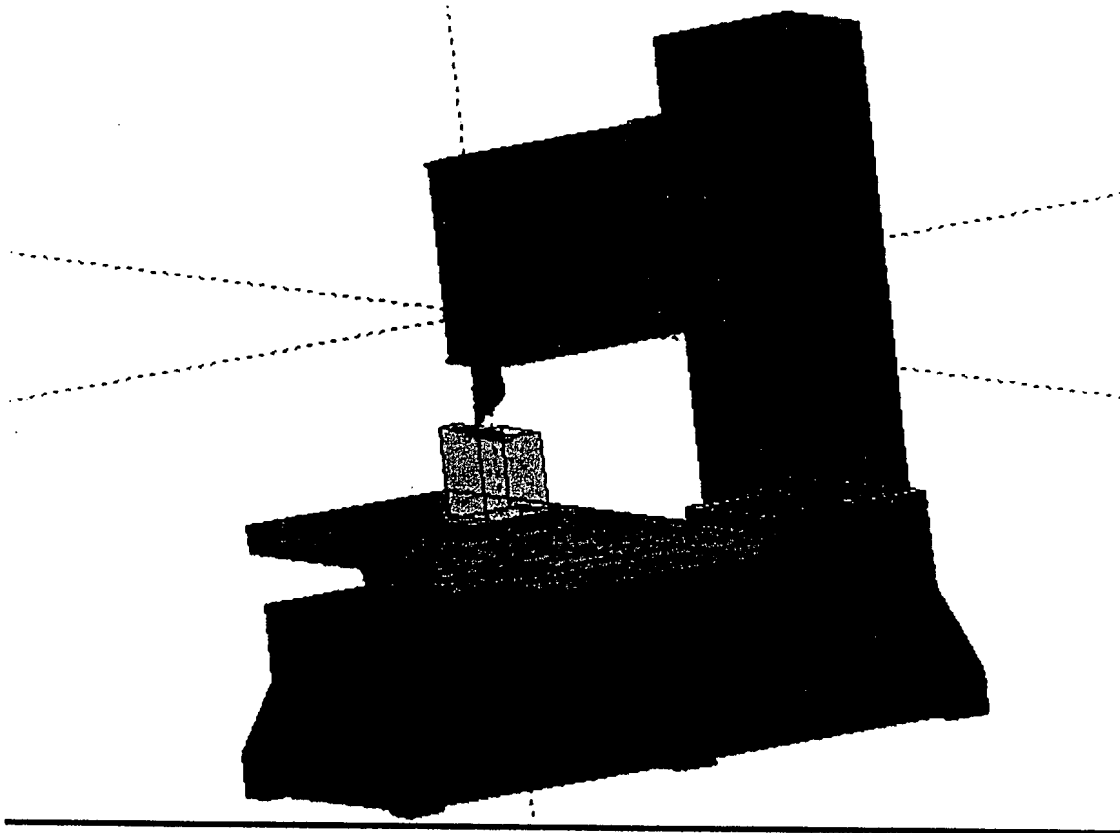Inventor's Phone No.: (951) 674-8100

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Isometric View

Dim"R"
8

Bck270 Llt70 Cw20 Lay0 Scale.312923 (C:\AS3000\WORK\5-Axes Head Manipula.

FIG 6.

Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive
tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
Application No. 10/079,309
Inventor's Phone No.: (951) 674-8100

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FIG 7.

Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive
tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
Application No. 10/079,309
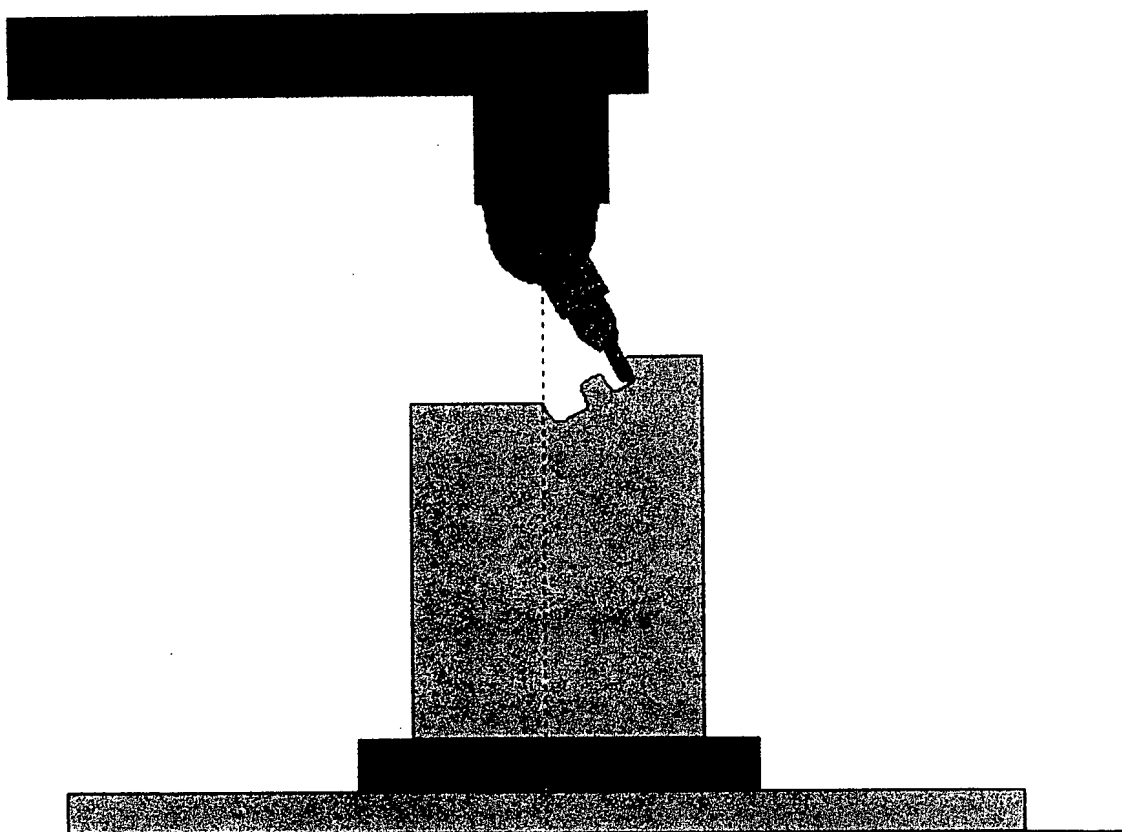Inventor's Phone No.: (951) 674-8100

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FIG 8.

Invention Title: Multi-Axes Tool Compensation – 3D and 5-axis real-time interactive
tool compensation inside the CNC machine tool controller.
Inventor: Gary John Corey
Application No. 10/079,309
Inventor's Phone No.: (951) 674-8100

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%
N10 T01 M6
N20 G90 S200 M3
N30 G0 A270. B0
N40 X0 Y-21. Z0 M8
N50 Z20.5
N60 G1 Y-10.933 Z17.9365 A270. B-30. F10.
N70 Y-3.2465 Z10.75 A270. B-60.
N80 Y0 Z.5 A270. B-90.
N90 Y-3.2465 Z10.75 A90. B-60.
N100 Y-10.933 Z17.9365 A90. B-30.
N110 Y-21. Z20.5 A90. B0
N120 G1 Z0
N130 G0 A0 B0
N140 X0 Y-21. Z0 S200 F10.
N150 G1 Z20.5
N160 G1 Y-10.9332 Z17.9367 A0 B-29.9993 F10.
N170 Y-3.2463 Z10.7498 A0 B-60.0007
N180 Y0 Z.5 A0 B-90.
N190 Y-3.2465 Z10.75 A180. B-60.
N200 Y-10.933 Z17.9365 A180. B-30.
N210 Y-21. Z20.5 A180. B0
N220 Z0
N230 G0 A0 B0
N240 M30
%
```

FIG 9.